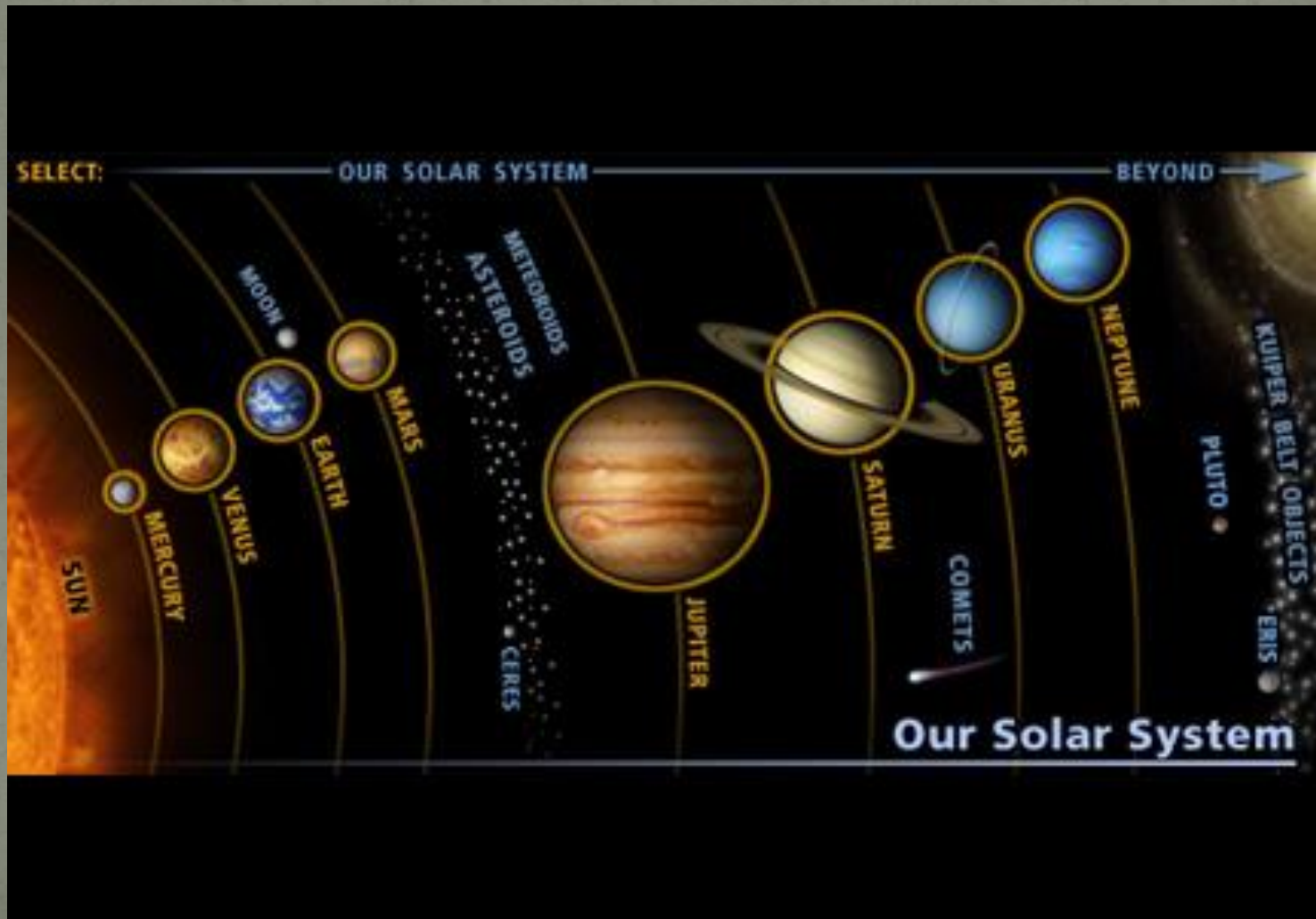


What Objects Are in the Solar System?



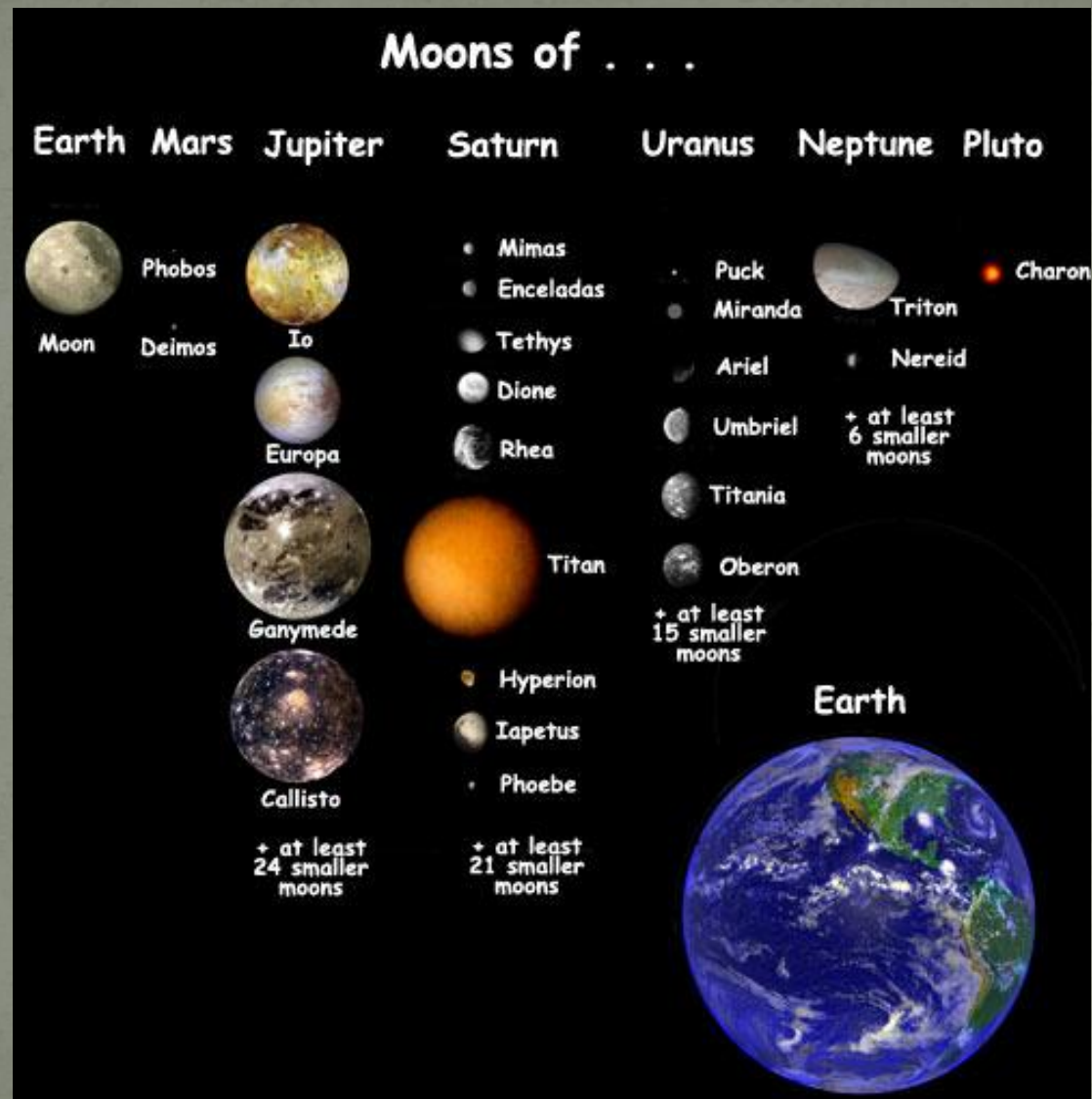
Solar System: a group of objects that orbit a star in the center, and that star.



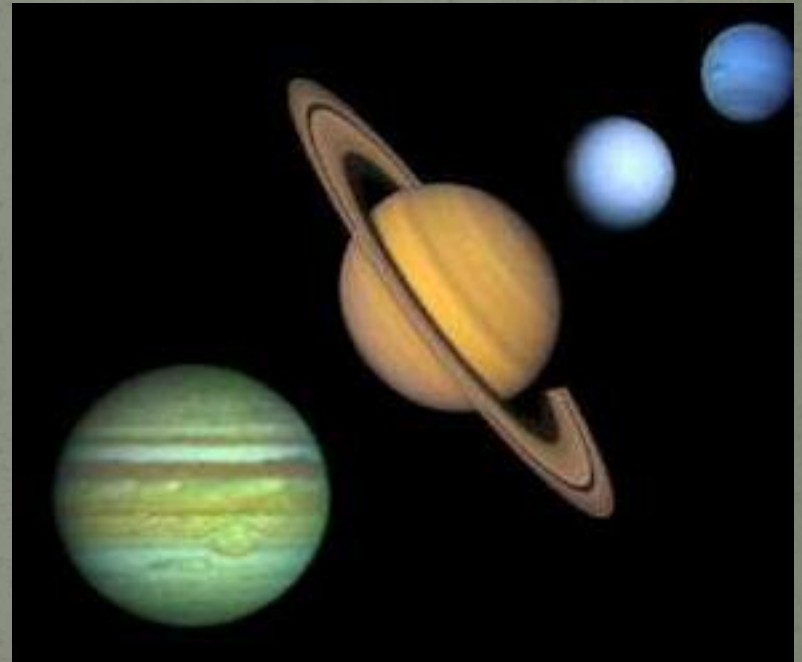
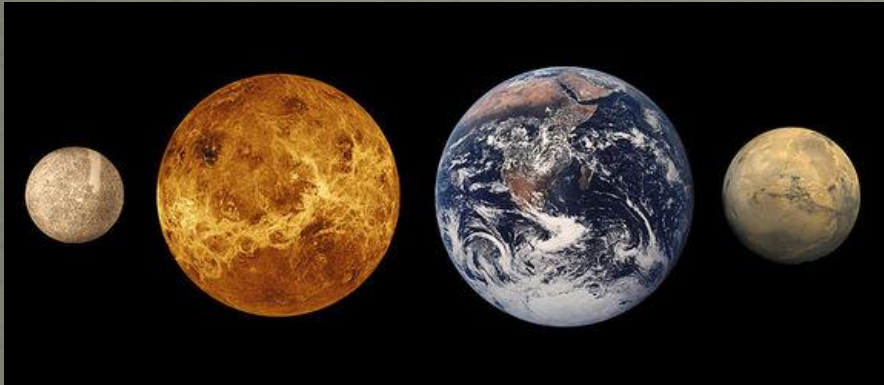
planet

a large object that orbits a star

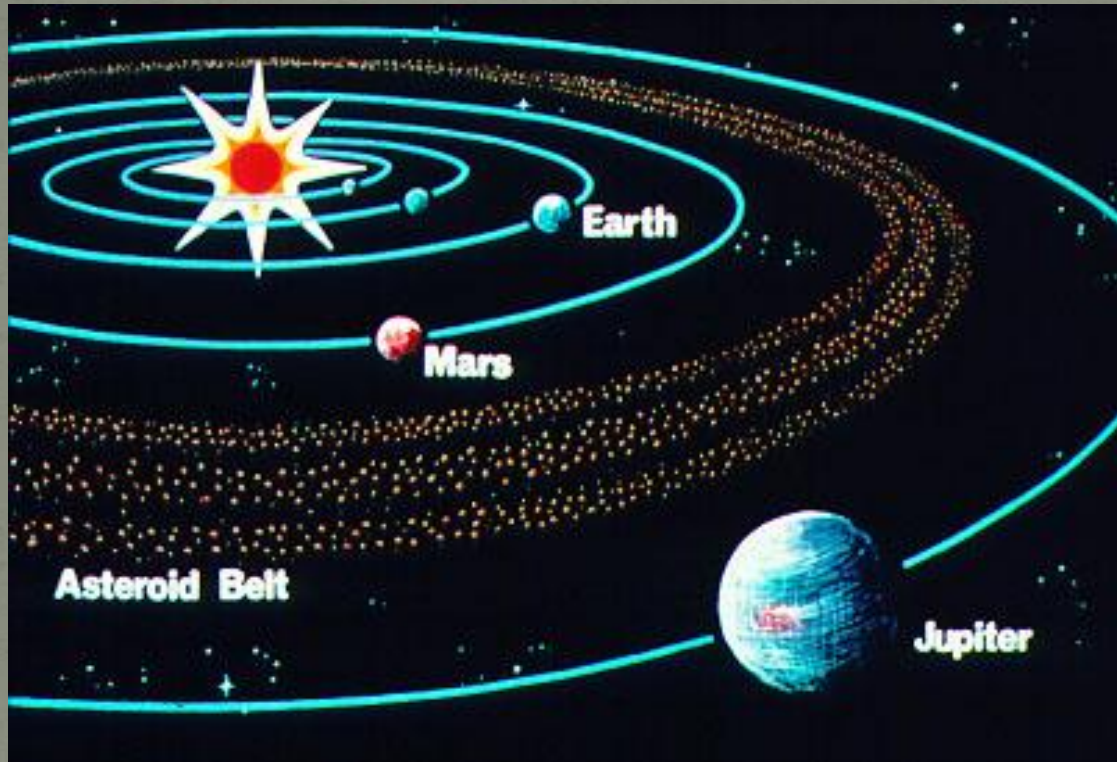
Only Mercury and Venus do not have moons.



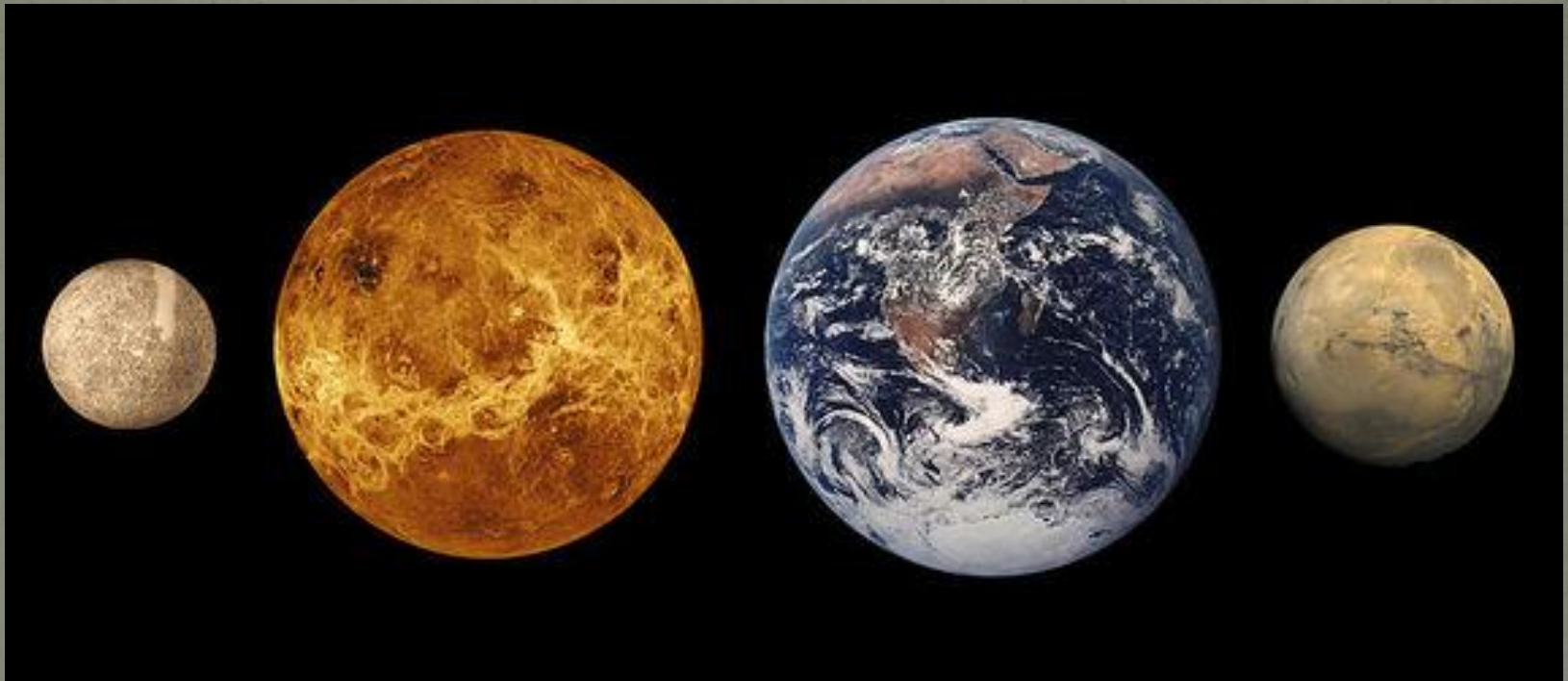
Our solar system is often grouped into the inner planets and the outer planets.



The two groups are separated by a ring of asteroids.



The inner planets are closer to the sun, have rocky surfaces, and are smaller than the outer planets.



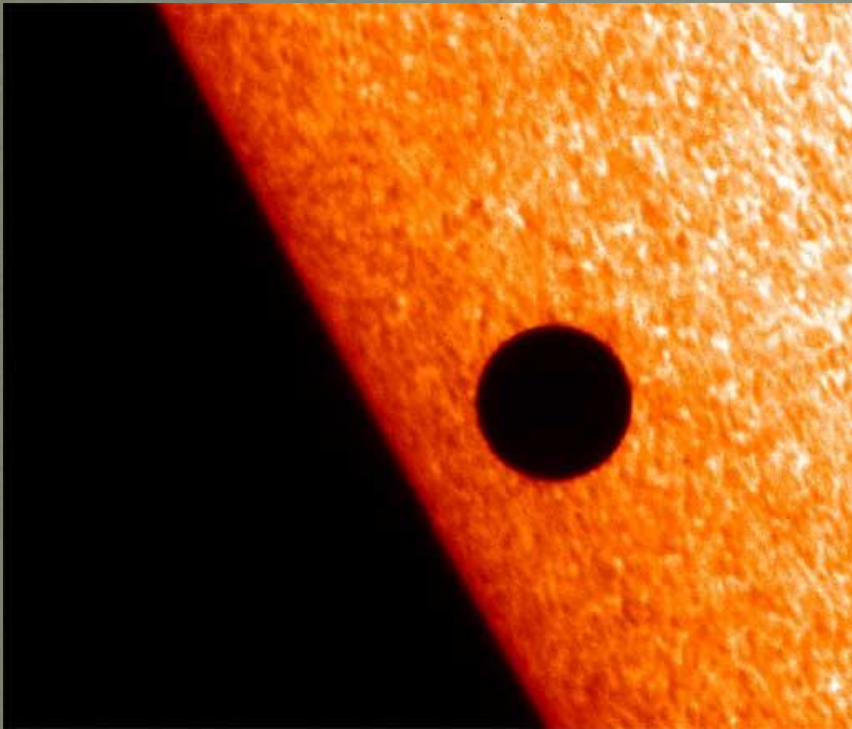
Mercury

Venus

Earth

Mars

Mercury



- About the size of Earth's moon
- Has no moons
- One rotation (day) takes about 60 Earth days.
- Nighttime (30 days long) temperature lows can reach -274°F
- Daytime (30 days long) temperature highs can reach 662°F

Venus



- About the same size as Earth
- Has no moons
- One rotation (day) takes about 243 Earth days.
- Average surface temperature is 864° F
- Is the 3rd brightest object in Earth's sky (only the sun and moon are brighter)

Earth



- Largest inner planet
- Has one moon
- One rotation (day) takes 24 hours.
- Nighttime temperature lows can reach -126°F
- Daytime temperature highs can reach 136°F
- Only planet with surface water and oxygen in the atmosphere

Mars



- About half the size of Earth
- Has 2 moons
- One rotation (day) takes about 24.5 hours.
- Nighttime temperature lows can reach -207°F
- Daytime temperature highs can reach 70°F
- Atmosphere is 95% carbon dioxide

The outer planets are much bigger than Earth and are mostly made of gas. They have no known solid surface.



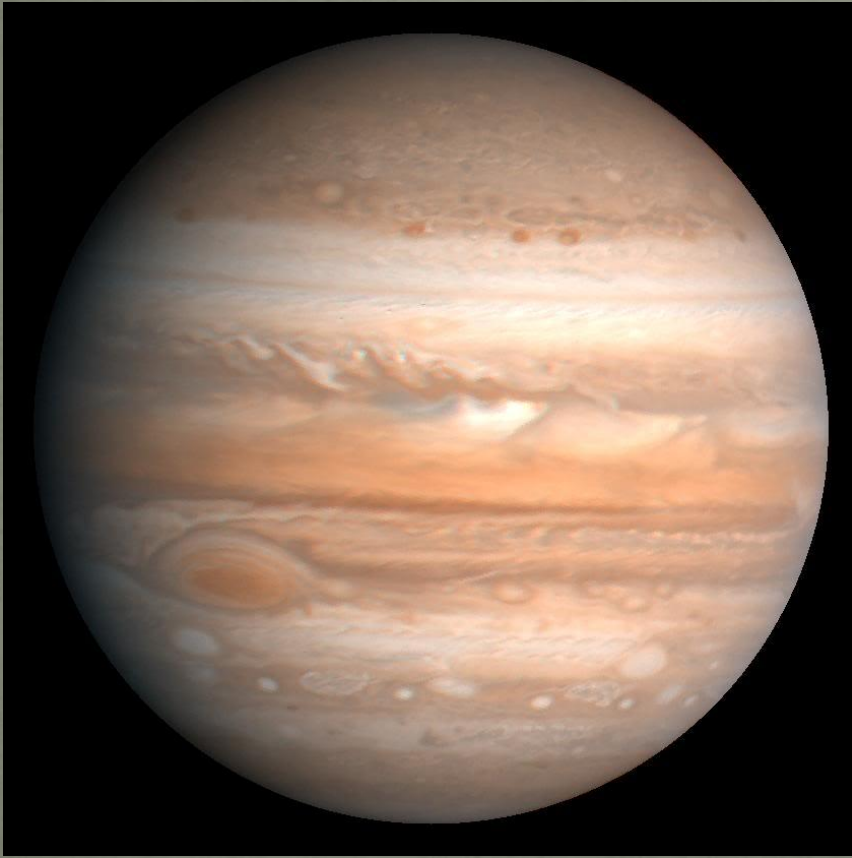
Jupiter

Saturn

Uranus

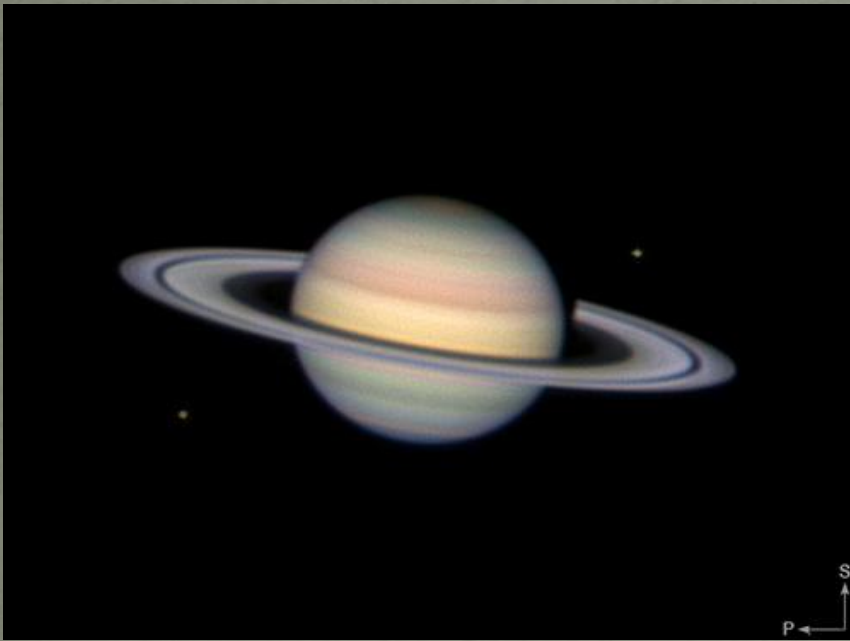
Neptune

Jupiter



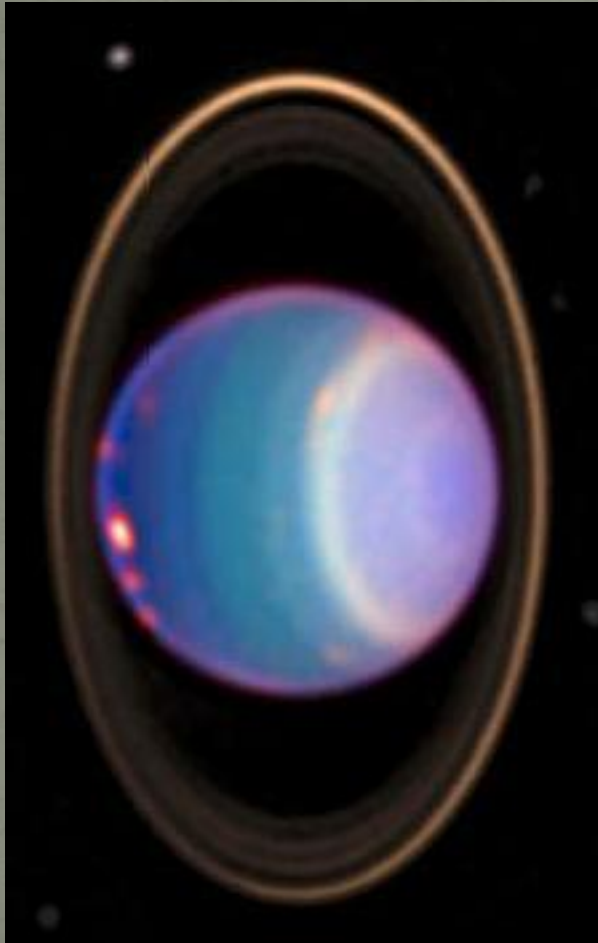
- About 11 times the size of Earth (the largest planet)
- Has at least 63 moons
- One rotation (day) takes about 10 hours.
- Temperature at cloud tops -234°F
- Has rings like Saturn, but they are not as famous or visible.

Saturn



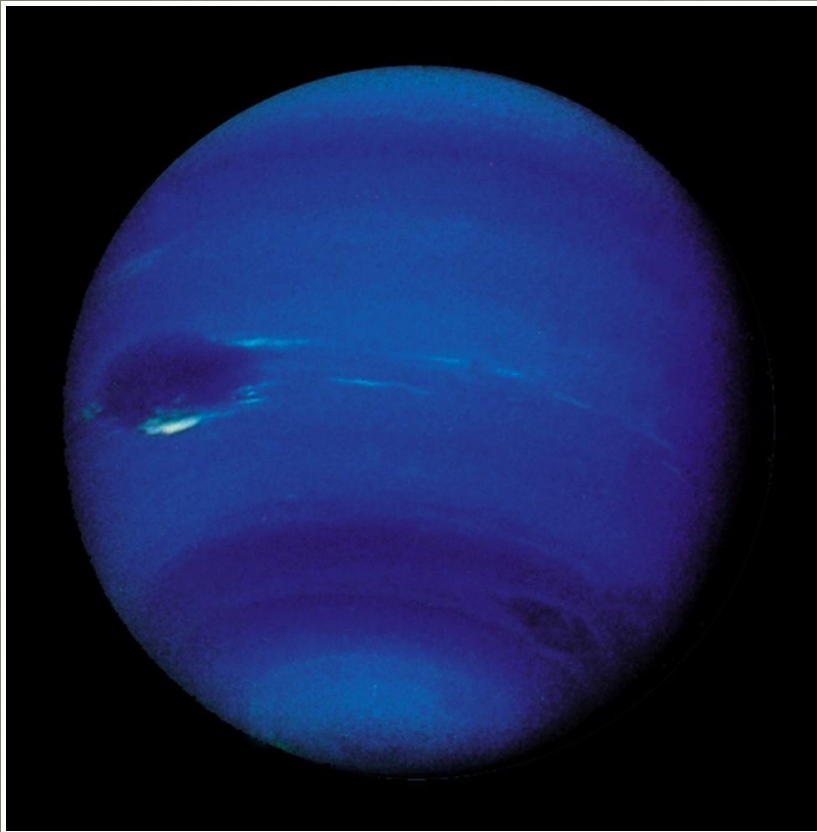
- The second largest planet
- Has about 58 moons
- One rotation (day) takes about 10.5 hours.
- Temperature at cloud tops -288°F
- Atmosphere is mostly hydrogen and helium

Uranus



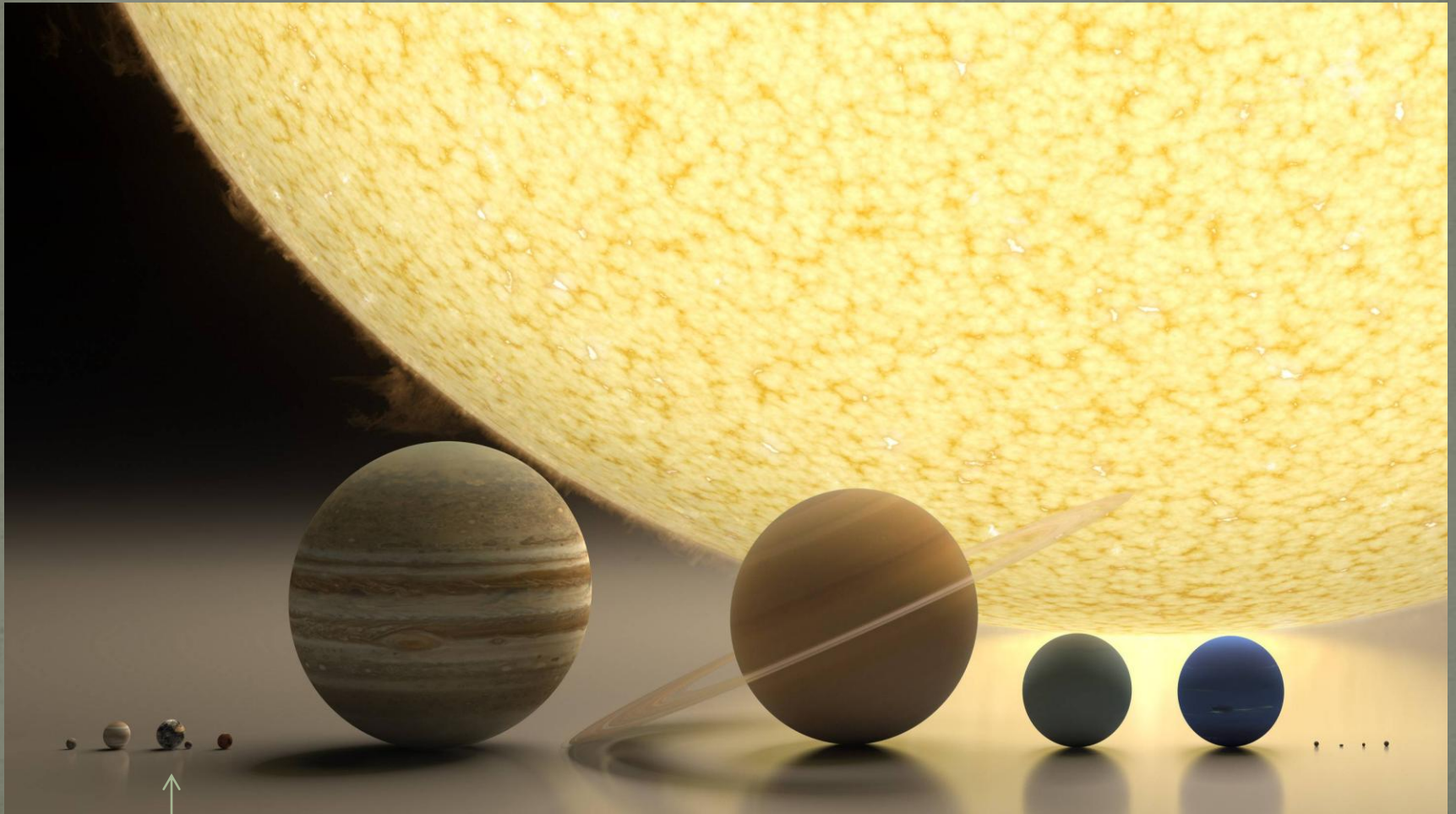
- About 4.5 times the size of Earth
- Has 27 moons
- One rotation (day) takes about 17 hours.
- Atmosphere is mostly hydrogen, but methane gas gives Uranus its blue haze.
- Rotates on its side

Neptune



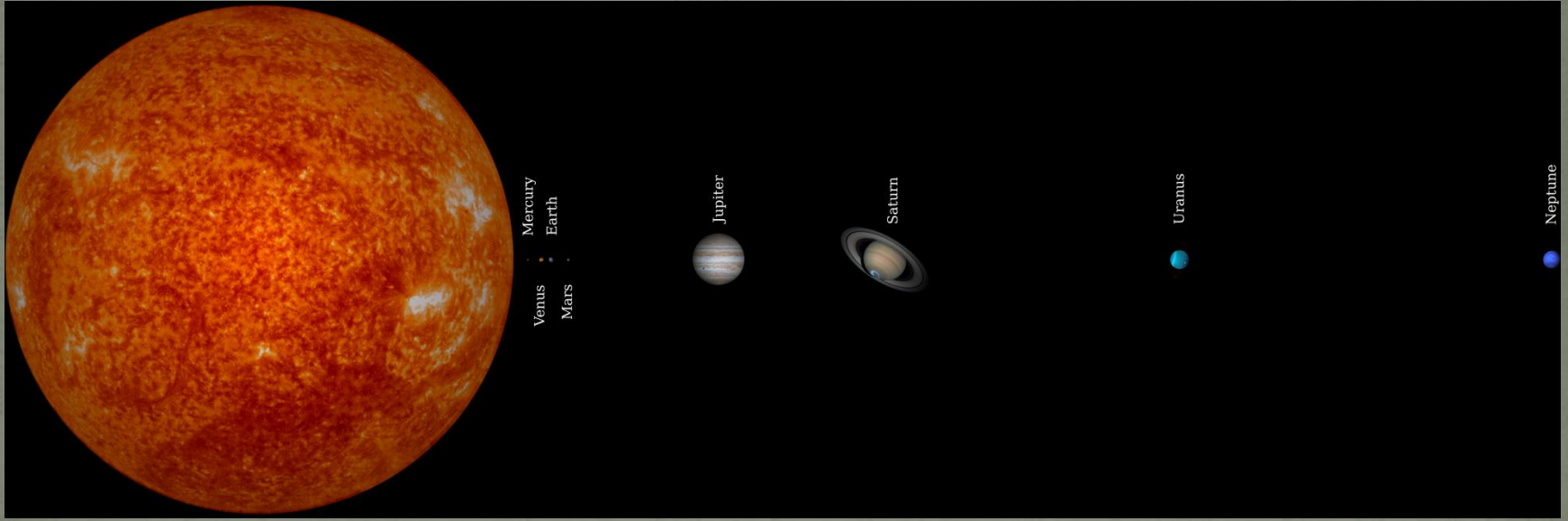
- About 4 times the size of Earth
- Has 13 moons
- Scientists think Neptune captured its largest moon (Triton) from the Kuiper Belt
- One rotation (day) takes about 16 hours.
- Neptune has wind speeds that can reach 1,800 feet per second!

We think of Earth as being quite large, but compared to the gas giants we are kind of small.



↑
Earth

The planets are not spaced evenly in their distance from the sun.



Because of this, Mercury's year is only 88 days long, but Neptune's year is equal to 165 Earth years!

Planet	Distance from Sun (millions of km)	Orbital Velocity (km per second)	Period of Revolution
Mercury	58	48	88 days
Venus	108	35	225 days
Earth	150	30	1 year
Mars	228	24	2 years
Jupiter	778	13	12 years
Saturn	1 429	10	29 years
Uranus	2 875	7	84 years
Neptune	4 504	6	165 years

What about Pluto?



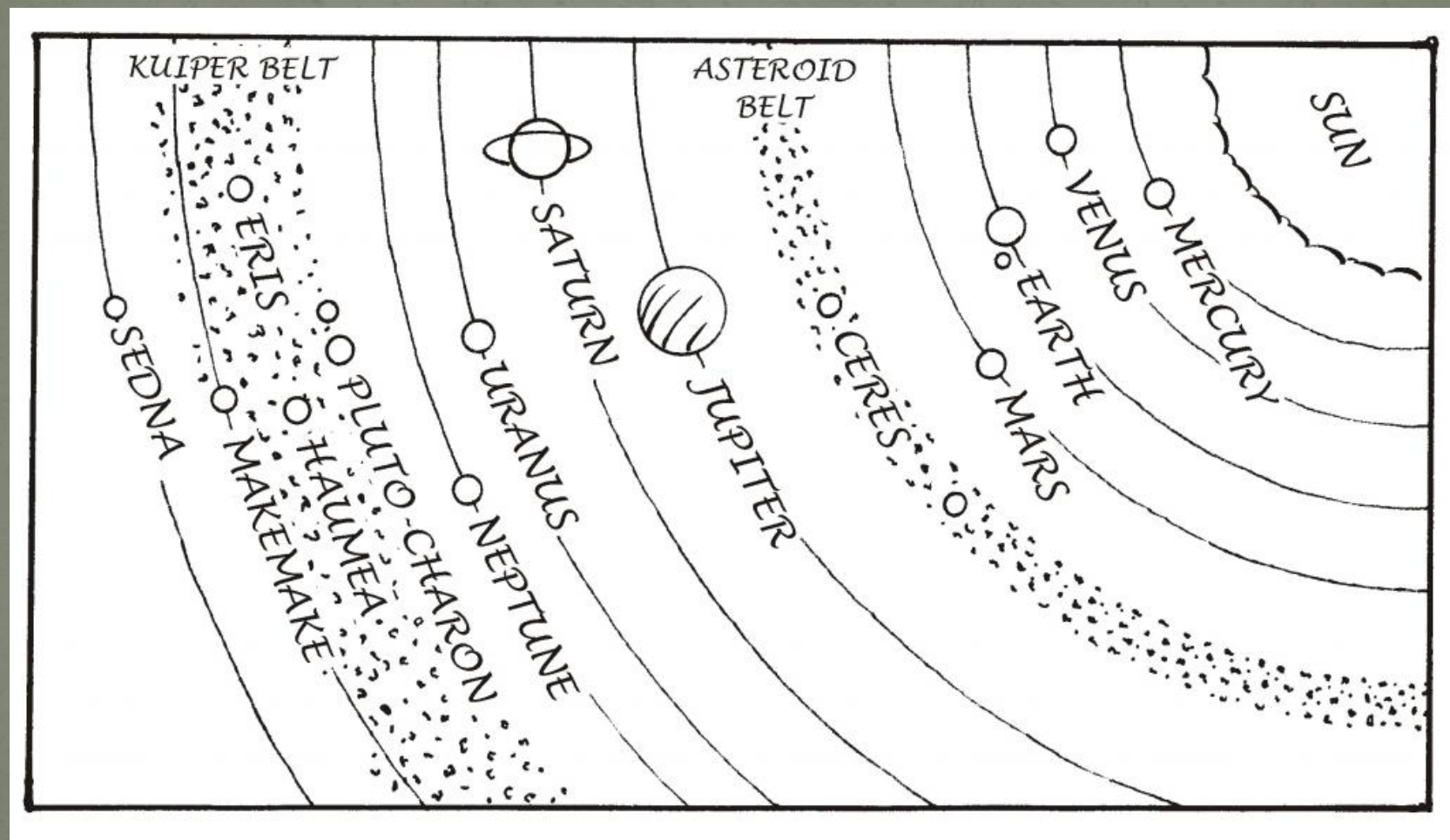
Saturn's moon

Jupiter's moons

Earth's moon

Neptune's moon

Pluto is considered a dwarf planet.



Other small bodies

Asteroids are made of rock and metal.

Comets are made of dust and frozen gases.

